

PATENT COOPERATION TREATY

35888

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:
FENSTER, PAUL
FENSTER & COMPANY PATENT ATTORNEYS, LTD.
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PCT NOTIFICATION OF TRANSMITTAL OF INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Rule 71.1)

Date of Mailing
(day/month/year)

12 JAN 2006

Applicant's or agent's file reference

319/02004

IMPORTANT NOTIFICATION

International application No.

PCT/IL02/00614

International filing date (day/month/year)

24 July 2002 (24.07.2002)

Priority date (day/month/year)

24 July 2002 (24.07.2002)

Applicant

KEDDEM BIO-SCIENCE, LTD

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.
4. **REMINDER**

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices)(Article 39(1))(see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/US

Mail Stop PCT, Attn: IPEA/ US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Facsimile No. (571) 273-3201

Form PCT/IPEA/416 (July 1992)

Authorized officer

Michael Borin

Telephone No. (571) 272-1600

2004

RECEIVED

Docketed By *IR*

24 JAN 2006

To: *UK* ☒ *MF* ☐
AD ☐ *CS* ☐

FENSTER & Co.

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 319/02004	FOR FURTHER ACTION		See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/IL02/00614	International filing date (day/month/year) 24 July 2002 (24.07.2002)	Priority date (day/month/year) 24 July 2002 (24.07.2002)	
International Patent Classification (IPC) or national classification and IPC IPC(7): G01N 31/00, 33/48; G06F 19/00 and US Cl.: 702/19,22,27			
Applicant KEDDEM BIO-SCIENCE, LTD			
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>4</u> sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of <u>—</u> sheets.</p> <p>3. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> I <input checked="" type="checkbox"/> Basis of the report II <input type="checkbox"/> Priority III <input checked="" type="checkbox"/> Non-establishment of report with regard to novelty, inventive step and industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input type="checkbox"/> Certain observations on the international application 			
Date of submission of the demand 24 February 2004 (24.02.2004)		Date of completion of this report 03 January 2006 (03.01.2006)	
Name and mailing address of the IPEA/US Mail Stop PCT, Attn: IPEA/ US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201		Authorized officer Michael Borin <i>F. Roberts for</i> Telephone No. (571) 272-1600	

Form PCT/IPEA/409 (cover sheet)(July 1998)

I. Basis of the report**1. With regard to the elements of the international application:***

- ☒ the international application as originally filed.
- ☒ the description:
pages 1-160 _____ as originally filed
pages NONE _____, filed with the demand
pages NONE _____, filed with the letter of _____.
- ☒ the claims:
pages 161-179 _____, as originally filed
pages NONE _____, as amended (together with any statement) under Article 19
pages NONE _____, filed with the demand
pages NONE _____, filed with the letter of _____.
- ☒ the drawings:
pages 1-5 _____, as originally filed
pages NONE _____, filed with the demand
pages NONE _____, filed with the letter of _____.
- ☐ the sequence listing part of the description:
pages NONE _____, as originally filed
pages NONE _____, filed with the demand
pages NONE _____, filed with the letter of _____.

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages NONE
- ☐ the claims, Nos. NONE
- ☐ the drawings, sheets/fig NONE

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/IL02/00614

III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The question whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been and will not be examined in respect of:

- ☐ the entire international application,
☒ claims Nos. 8-13, 16-23, 50-53, 58-101, 104-154

because:

- ☐ the said international application, or the said claim Nos. _____ relate to the following subject matter which does not require international preliminary examination (*specify*):

- ☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. _____ are so unclear that no meaningful opinion could be formed (*specify*):

- ☐ the claims, or said claims Nos. _____ are so inadequately supported by the description that no meaningful opinion could be formed.

- ☒ no international search report has been established for said claims Nos. 8-13, 16-23, 50-53, 58-101 and 104-154

2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:

- ☐ the written form has not been furnished or does not comply with the standard.
☐ the computer readable form has not been furnished or does not comply with the standard.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/IL02/00614

V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. STATEMENT

Novelty (N)	Claims <u>14,15,24-35,44-56</u>	YES
	Claims <u>1-7,36,41-43,57,102,103</u>	NO
Inventive Step (IS)	Claims <u>NONE</u>	YES
	Claims <u>1-7,14,15,24-36,41-57,102,103</u>	NO
Industrial Applicability (IA)	Claims <u>1-7,14,15,24-36,41-57,102,103</u>	YES
	Claims <u>NONE</u>	NO

2. CITATIONS AND EXPLANATIONS

Claims 1-7,36,41-43,57,102,103 lack novelty under PCT Article 33(2) as being anticipated by Fejzo et al. or Sannes-Lowery et al.

The claims are addressed to the extent of their breadth. "Obtaining information about chemical active area" is read as obtaining any information about any interaction of a target molecule. "Chemically specific binding configurations" is read as ability to react with a gauge. "Gauge" is understood as a reactant with a known structure.

Fejzo et al. teaches using library of small compounds to determine their binding to a target molecule; apparently such determination of binding will allow to "obtain information about chemically active areas of a target molecule" (using the language of the instant claims). The small compounds of the library are compound scaffolds derived from shapes most commonly found in known therapeutic agents.

Similarly to Fejzo, Sannes-Lowery describes method of describing identity of RNA target molecules by determining binding of small molecules selected from combinatorial libraries.

Claims 14,15,24-35,44-46 lack an inventive step under PCT Article 33(3) as being obvious over Fejzo et al. or Sannes-Lowery.

Even though the reference does not teach amount of binding molecules needed to cover "the virtual space", or amount of binding molecules needed to successfully bind to target molecule, or use of such results for creating a spatial map of the target molecule, such determinations and uses would be obvious to an artisan as a part of a routine optimization.

Claims 1-7, 14,15,24-36,41-46,57,102,103 lack an inventive step under PCT Article 33(3) as being obvious over Darvas et al. The reference teaches, that in the post-genomic era small molecules are used as chemical probes such as marker libraries for probing and profiling the genome, proteome and metabolome directly. In particular example, the reference demonstrates use of specific marker libraries to identify gene-coded functional targets in a proteome and their specific hit compounds simultaneously.

Claims 1-7, 14, 15, 24-36, 41-57, 102 and 103 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

----- NEW CITATIONS -----

NONE